How the Health Workforce Impacts Access to Sexual and Reproductive Health Services:

Integrative Review

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Abstract

In the United States, disparities in sexual and reproductive health (SRH) are more likely to affect communities of color, people who are socioeconomically disadvantaged, and rural areas. The Affordable Care Act and Title X Family Planning program have improved the use of SRH services, yet, gaps in healthcare access continue to exist and must be addressed. The purpose of this integrative review was to examine the current literature on clinician factors that impact access to sexual and reproductive health care. CINAHL, PubMed, and Embase were used as the primary sources for data collection. Fifteen articles were selected for analysis. Three themes of clinician impact on access emerged from the literature: number of clinicians providing SRH services, clinician knowledge of SRH and the type of clinician providing SRH services.

How the Health Workforce Impacts Access to Sexual and Reproductive Health Services: Integrative Review

Introduction

In the past 4 years, there has been an increase in demand for sexual and reproductive health services growth of the number of people of reproductive age (Auerbach, Pearson, Taylor, Battistelli, Sussell, Hunter, Schnyer, & Scheider, 2012). Despite the comparably large amount of money spent on healthcare, women in the United States have poorer reproductive health outcomes than women in other developed countries (Squires & Anderson, 2015). Disparities in sexual and reproductive health (SRH) outcomes in the United States commonly fall on communities of color and people who are socioeconomically disadvantaged (Hall, Dalton, & Johnson, 2014).

Black women are more likely to have complicated pregnancies and have higher rates of maternal mortality than white women (Mehta, 2014). Reproductive health disparities between Black and White women persist with contraceptive use, unintended pregnancy, cesarean rates, and prenatal care (Mehta, 2014). Analysis of data on reproductive health disparities has demonstrated strong geographic patterns, with higher disparities found in the South and in rural areas (Mehta, 2014). In a survey of family planning clinic across urban and rural areas, rural clinics were more likely to have a clinician on-site only one day per month; furthermore, rural family planning clinics are less likely to offer the range of services an urban clinic might thereby limiting access to reproductive choices for women in rural areas (Martins, Starr, Hellerstedt, & Gilliam, 2016).

In accordance with the Healthy People 2020 aims to increase family planning and reproductive healthcare use, the Affordable Care Act (ACA) established reproductive healthcare

as a preventative service and made contraceptives more affordable (Sonfield, Tapales, Jones, & Finer, 2015). The Title X Family Planning Program, implemented in 1970, has also been a force in improving access to contraceptive and preventative health services, particularly for individuals at a socioeconomic disadvantage (Institute of Medicine, 2009). Through the ACA and Title X, use of contraceptives has improved, yet, gaps in healthcare continue to exist and must be addressed. Understanding how access to reproductive health care has been studied will aid in determining new directions in research to inform policy and practice.

Access is a complex and fluid concept of healthcare that has been conceptualized in various ways in healthcare research. The "Behavioral Model of Health Services Use" describes access as a political idea comprised of population and health care system characteristics, focusing on outcome measures and utilization as indicators of access (Ricketts & Goldsmith, 2005). Frameworks of access can be frequently based on illness as a motivating factor for individuals to seek out care; however, in SRH, services like family planning are prevention, rather than condition, driven. Furthermore, how individuals respond (biologically or behaviorally) over time as a result of utilizing the health care system, is not often included as a parameter in studies of access, yet it is a crucial piece to determining health care quality (Ricketts & Goldsmith, 2005).

A "fit" concept of health care access that has been used to designate Health Professional Shortage Areas (HPSA) and Medically Underserved Areas (MUA) imagines access as the relationships between resources, demand, and needs (Ricketts & Goldsmith, 2005). This theory suggests "interactive and cyclic processes" between patients and health care systems (Ricketts & Goldsmith, 2005).

The shifting landscape of healthcare providers, with more physicians going into specialty practice, and growing numbers of advanced practice providers (APPs) - physician's assistants (PAs) and advanced practice nurses (APRNs) - has led to concerns over shortages or a maldistribution of healthcare providers in primary care (Fraher, Morgan, & Johnson, 2016). In addition, recognition that APPs are more likely to practice in non-urban areas has led to calls to relax or remove APRN scope-of-practice regulations to allow for the APRN workforce to be utilized more effectively in primary care (Graves, Mishra, Dittus, Parikh, Perloff, & Buerhaus, 2016). Unfortunately, this focus on geographic distribution and scope of practice has not yet been used to examine SRH as it has in the broader area primary care.

Studies on access to reproductive healthcare have often focused on providers as healthcare facilities (i.e. private vs. public OB/GYN practices, Planned Parenthood clinics, Title X clinics vs. non-Title-X clinics, primary care vs. family planning facilities) as opposed to the healthcare workforce. As clinicians who make up the workforce are essential elements in the reproductive health care system, examining how to best mobilize the current workforce to provide affordable and comprehensive care is critical component to ensuring access to SRH in the future.

Therefore, the purpose of this paper is to examine the current literature on clinician factors that impact access to sexual and reproductive health care. Literature focusing on APRN clinicians is of particular interest. This paper will then address gaps in the literature and provide suggestions for further study.

Methods

An integrative literature review approach was chosen so that a wider array of research could be incorporated, enhancing data collection and examination of a complex health care issue

(Whittemore & Knafl, 2005). The methods will be guided by the 2005 paper by Robin Whittemore, PhD, APRN and Kathleen Knafl, PhD, on integrative review methods (Whittemore & Knafl, 2005). To maximize and clarify data collection and provide a comprehensive view of the nursing workforce, the term “sexual and reproductive health” included pregnancy care, family planning and contraception, STI testing and abortion provision. Access to care was defined as use of services, insurance coverage, positive health outcomes, positive relationships between patients and clinicians, clinician provision of services or training in procedures.

CINAHL, PubMed, and Embase were used as the primary sources for data collection. Search terms included ("sexual health" OR "reproductive health" OR "sexual and reproductive" OR "family planning" OR abortion OR contracept*) AND (access*[title] OR availability[title] OR utilization[title]) AND (workforce OR supply OR demand OR shortage OR distribution OR nurse* OR NPs OR OB/GYN* OR obstetrician* OR clinician* OR provider* OR midwife OR midwives OR CNM*). Inclusion criteria incorporated empirical research, theoretical papers and reports published between January 1, 2006 and December 31, 2016. Unpublished manuscripts, such as dissertations or theses, opinion pieces, and editorials were not included. Articles were excluded if they did not identify a specific clinician type or draw conclusions about the impact of specific clinician practices on healthcare access. Articles were included if they examined a specific clinician type (nurse, physician, OB/GYN, APRN, PA, etc.) and provided analysis or discussion of how that clinician impacted access to SRH. Reference sections of articles were also scanned for relevant articles to be included in analysis that may have been left out of the database searches.

Initially, 999 articles were identified using the search terms. Titles and abstracts were then scanned, narrowing the results to 214 articles that had possible relevance to the healthcare

workforce and access to SRH in the United States. 193 were excluded because they did not address specific clinician types or influences on access to SRH services. Five articles were identified and included from scanning reference sections of relevant papers. A final sample of 15 articles was identified (Figure 1). The articles were put into a data extraction table (Table 1) for analysis and evaluated based on the purpose or problem addressed, definitions of access, study type and design, sample, instruments and data sets used, results, and clinician focus.

Results and Analysis

Eleven of the articles selected were quantitative studies. Of those, 10 were correlational, and one was the evaluation of an intervention. One article was a qualitative study that conducted interviews with physicians about their views about long-acting-reversible contraceptives (LARCs) and how those views impact their provision of intrauterine devices (IUDs) as contraception for adolescents. The intervention study examined the impact of increased schedule availability and didactic instruction on LARC and abortion counseling and provision on the number of family medicine residents providing abortions and LARC insertion or removal (Carvajal, Khanna, Williams, & Gold, 2016). A report that incorporated quantitative and qualitative methods to analyze future demand for SRH services and meeting that demand with services provided by nurse practitioners was also included (Auerbach, Pearson, Taylor, Battistelli, Sussell, Hunter, Schnyer, & Scheider, 2012). Two reviews were examined. One literature review explored barriers adolescents face to obtaining LARCs (Kumar & Brown, 2016). The other was a mixed literature and policy review on APPs and their role in the provision of abortion care in the United States (Samora & Leslie, 2007).

Five articles focused on physicians (MDs) only; 2 focused on APRNs only; 2 focused on APRNs and PAs; one focused on MDs and APRNs; and 5 included MDs, APRNs, and PAs.

Only 2 studies distinguished CNMs from other practitioners in analysis (Foster, Polis, Allee, Simmonds, Zurek, & Brown, 2006 and Samora & Leslie, 2007), in addition to the report on nurse practitioner supply and demand in sexual and reproductive healthcare.

Three themes of clinician impact on access emerged from the literature: number of clinicians providing SRH services, clinician knowledge of SRH and the type of clinician providing SRH services. Each of these themes will be discussed next.

The Number of Clinicians Providing SRH Services

Studies examining the number of clinicians providing SRH services were the fewest in number (n = 3) in the literature. An intervention study by Klerman et al., concluded that an increased number of trained clinicians resulted in an increase in LARC insertions and removals at the clinic. Greater numbers of clinicians also allowed for more appointment openings which established a "perceived responsiveness" of the clinic to the SRH needs of the population utilizing the clinic (Klerman et al., 2007). Training and the number of clinicians were two commonly interwoven themes, as the lack of adequate training in certain SRH services, such as abortion, was identified as a reason that fewer clinicians offered those services (Espey, Leeman, Ogburn, Skipper, Eyman, & North, 2011). A report by Auerbach et al. was the only article that used national data to examine the current and projected supply of SRH clinicians, focusing exclusively on APRNs (Auerbach et al., 2012). The report found that while the overall supply of APRNs is projected to increase dramatically by 2020, the number of APRNs specializing in SRH is not expected to grow as significantly due to the systematic prioritization of geriatric and primary care content in nursing education (Auerbach et al., 2012). In sum, the number of SRH clinicians impacts the availability of services and is also dependent on training and knowledge of clinicians.

Clinician Knowledge of and Beliefs About SRH

The majority of articles included in this analysis were surveys of clinicians that included questions about their training or knowledge of procedures, practices, and/or policies. Four studies included parameters to assess provider opinions or views that impacted their provision of SRH services. These personal perspectives are included in the thematic category of "knowledge" because some providers expressed beliefs that could be addressed with adequate education, such as misconceptions about the safety of IUDs (Kumar & Brown, 2016). A study that surveyed office-based physicians (n=635) and Title X physicians, PAs, NPs, and nurses (n=1,323) found that "30% of respondents had misconceptions about the safety of IUDs for nulliparous women" and that clinicians who received medical training more than 25 years ago were more likely to perceive IUDs as unsafe (Tyler, Whiteman, Zapata, Curtis, Hillis, & Marchbanks, 2012). In a survey of clinicians in the California family planning program (physicians, NPs, and PAs) 40% of those who did not offer IUD services cited lack of training as a reason for not doing so (Harper, Blum, Thiel de Bocanegra, Darney, Speidel, Policar, & Drey, 2008). In the same study, 20% of clinicians reported counseling patients on hormonal side effects when discussing the ParaGard®, a non-hormonal IUD (Harper et al., 2008).

Clinicians who are more knowledgeable about the side effects and bleeding patterns of both the non-hormonal and hormonal IUDs are more likely to counsel patients on the method of contraception (Harper et al., 2008). Lack of training or knowledge, regarding intrauterine contraception or abortion services, was commonly identified in surveys of clinicians as reasons for not providing those services. The report by Auerbach et al. also reported that decreased exposure to and lack of clinical training in SRH in APRN programs has contributed to fewer numbers of clinicians prepared to provide SRH services (Auerbach et al., 2012). Among APRN

and PA programs, the most common reasons for not providing didactic education on abortion was that it was not considered a curriculum priority (Foster, Polis, Allee, Simmonds, Zurek & Brown, 2006). Furthermore, one third of surveyed PA programs reported that abortion was "too political" of a topic to be covered in a lecture (Foster et al., 2006)

Type of Clinician Providing SRH

Articles were examined for analysis of how factors relevant to specific clinician types impact access to SRH services. Eight of the 15 articles fell into this category. In a survey of 526 clinics offering family planning services, 91.2% of sites staffed "midlevel practitioners" either APRNs or PAs) and only 62.5% staffed physicians (Klerman et al., 2007). Of clinics receiving Title X funding, 93.6% staffed APRNs and PAs, 86.2% staffed registered nurses (RNs) while only 40.8% staffed physicians (Klerman et al., 2007). Title X clinics are more likely to offer a range of contraceptive options compared to federally qualified health centers and local health departments (Klerman et al., 2007).

APRNs are less likely than physicians to require a pelvic exam prior to prescribing birth control and more likely than physicians to follow the appropriate STI and cervical cancer screening recommendations – meaning that APRN practice patterns create fewer barriers to birth control access (pelvic exams are longer appointments, therefore, there are fewer of them in a day limiting the availability of the clinician to prescribe birth control) (Henderson et al., 2010). The recent surge in APRNs in the workforce may contribute to this difference as more recently licensed clinicians may be more familiar changes in evidence-based practice. In the same study, it was also found that APRNs were more likely than physicians to provide SRH services to patients who are teenagers, minorities, uninsured, or Medicaid-insured (Henderson et al., 2010).

A study on the impact of staffing arrangements on the availability of gynecologic services in the Department of Veterans Affairs (VA) found a positive correlation with the routine availability of at least one OB-GYN and provision of advanced gynecologic services (IUD insertion, endometrial biopsy, infertility evaluation, infertility treatment, and gynecologic surgery) (Seelig, Yano, Bean-Mayberry, Lanto & Washington, 2008). Although the authors did not evaluate the role of clinician types in SRH service delivery, 82% of the sites surveyed staffed a combination of OB-GYNs, APRNs, and PAs, indicating the prominence of APPs, particularly APRNs, in SRH (Seelig et al., 2008).

Training exposure to SRH also varies by clinician type. In a survey of APRN and PA programs in the United States, 37% and 46% of PA and NP programs, respectively, provided didactic instruction on medication induced abortion care as opposed to 93% of CNM programs (Foster et al., 2006). In the case of abortion, many states restrict abortion provision to physicians despite evidence that APRNs and PAs can safely provide abortions (Samora & Leslie, 2007).

Discussion

In the literature regarding the health care workforce's impact on access to sexual and reproductive health the most commonly explored themes are clinician type, knowledge and beliefs, and the number of clinicians working in SRH. These factors are highly interrelated, pointing to the complexity of addressing disparities in health care access. The way in which access is conceptualized in the articles used for this review corresponds with the "Fit" framework of healthcare access, specifically the resources the health care system is able to provide. In this case, the SRH workforce is the resource being measured. The healthcare workforce available to provide SRH care is mediated by the above themes.

Consistent across the literature, the most reported barrier to SRH availability is clinician knowledge which varies based on clinician type, training experience, and education exposure. Further investigation and interventions to improve SRH education of the general health care workforce are needed, as individuals may seek SRH services from settings other than family planning clinics or an OB-GYN office. Adolescents may access family planning services though their pediatrician, yet pediatricians were found to be less knowledgeable about IUD safety than other physicians (Rubin, Campos, & Markens, 2013). They were also found to provide adolescents with less effective forms of contraception because of beliefs about adolescents' abilities to use STI prevention measures, despite evidence that encourages the use of IUDs for adolescent pregnancy prevention. Misconceptions among clinicians were found in multiple studies to negatively impacting IUD availability. Therefore, clinicians practicing in these setting need to be accurately and thoroughly trained in in how to implement SRH services in their practice.

The finding that the number of clinicians providing SRH services is dependent on training and knowledge of clinicians has implication for policies requiring the implementation of SRH education in clinician training programs. Unlike, other specialties in healthcare such as gerontology or psych-mental health, curricula in SRH is not standardized making it more difficult to integrate into generalist training (Auerbach et al., 2012). As in all fields of health care, recommendations for best practice in SRH are constantly evolving. Better dissemination of practice standards is also a necessary factor in improving clinician knowledge, dispelling misconceptions, and improving care delivery.

Removing policy barriers, such as state-level facility regulations, to allow for integration of SRH clinicians in primary care and encourage collaboration across specialties could also

improve SRH care delivery (Auerbach et al., 2012). More research is needed on the dynamic of clinician collaboration and its impact on delivery of SRH services. Further research on the impact of easing or eliminating scope-of-practice regulations on the number of APRNs practicing in SRH is also recommended since APRNs were more likely to work in Title X clinics and provide services to disadvantaged populations. APRNs, therefore, can play an important role in reducing reproductive health disparities.

In addition, most of the literature found for this review relied on clinician-reported survey data. There is room in this field for more rigorous study of policy impacts on clinician practice, such as the role of geography in health workforce and health care access (Graves et al., 2016) As healthcare, particularly sexual and reproductive healthcare, in the United States faces uncertainty in its future, it is necessary to bring more rigorous methods to studies of SRH access to better inform health policy and reduce disparities.

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Tables and Figures

Figure 1 – Prisma Flowchart

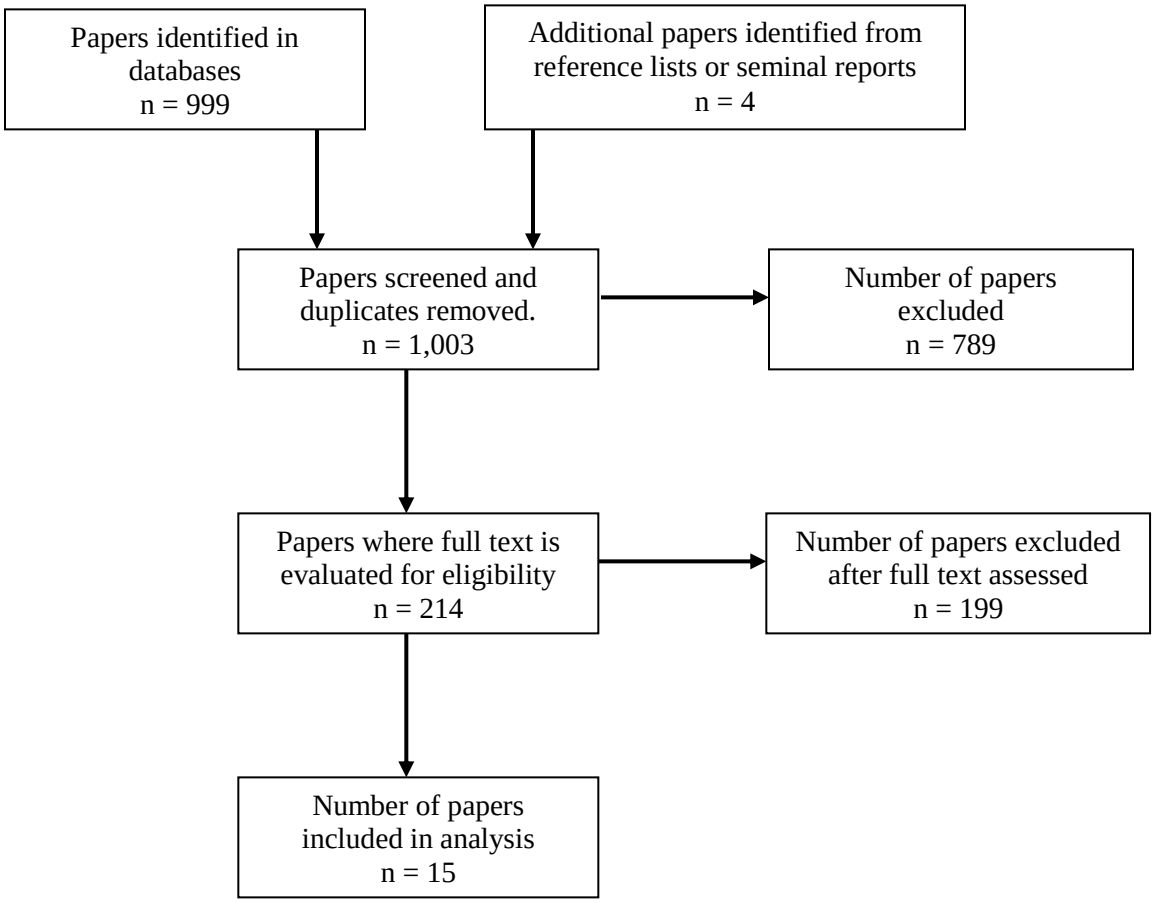

Table 1 – Selected Articles

Author, publication year, journal	Purpose	Clinician Focus	Method	Results	Sample Size & Response Rate
Auerbach et al. (2012) RAND Corporation	This study examined national level data to estimate the current and projected supply of APRNs working in SRH compared to current and projected demand for services.	APRN	Quantitative and qualitative	APRNs working in SRH are not estimated to grow in numbers at the same rate as APRNs working in primary care and geriatrics. Barriers that contribute to expanding the supply of APRNs working in SRH are education, training, decreased funding for Women's Health NP programs, fragmented care delivery systems, and other factors.	
Carvajal et al. (2016) ***Family Medicine***	Implementation of an intervention to increase the number of residents in an urban family medicine practice providing LARC insertion and removal and medication abotions. They increased didactic instruction on counseling and care, workshops, established a pro-choice student group, and increased the number of appointments available in the clinic for each procedure type.	Family Medicine residents (physicians)	Intervention study – Pre-post framework	The intervention showed increases of resident placement and removal of LARCs as well as practice-wide. The number of residents opting to particpate in abortion care increased from 2 in 2013 to 10 in 2014 (out of 12 total). No change in MAB provision was observed.	N/A
Cheng et al. (2014) ***Journal of Professional Nursing***	In an attempt to understand anecdotal evidence of issues of APRN recruitment and retention in these clinics, this study sought to assess what factors contributed to APRNs remaining in federally funded Title X clinics.	APRN	Quantitative Survey – Correlational study	The study found that "higher levels of local family responsibilities and less involvement in professional organizations" could have an impact on the intention of APRNs to remain in Title X clinics. Job satisfaction, less routinization, positive work environment, and fair salary distribution were also relevant factors.	N = 406
Dehlendorf et al. (2010) ***Contraception***	This study assess knowledge about contraception in a	Physicians, APRN, PA	Quantitative Survey – Correlational study	There is a lack of consistent knowledge about contraceptives	N = 524

	convenience sample of SRH clinicians and analyzed based on provider characteristics.			among SRH providers. Younger providers were found to be more knowledgeable, as well as OB-GYNs, however, the study included only 4% midlevel clinicians.	
Espey et al. (2011) *Contraception*	Has FDA approval of mifespristone increased the number of abortions provided by OB-GYNs and Family Medicine physicians.	Physicians	Quantitative Survey – Correlational Study	It was not found that the FDA approval of mifepristone increase the number of physicians providing MAB, but 31% of respondants were interested in receiving training. Family medicine physicians were more likely to state lack of training as a reason for not providing abortion care while OB-GYNs were more likely to not provide abortion care on the grounds of moral or religious beliefs.	2001: N = 215 (59%) 2008: N = 166 (53%)
Foster et al. (2005) *Contraception*	This study surveyed CNM, NP, and PA programs across the United States to understand what kind of and how much training is offered in their programs on abortion care, family planning, pregnancy counseling. They surveyed program directors at accredited APC programs in the US.	APRN (NP & CNM), PA	Quantitative Survey – Descriptive study	Family planning and contraception care are covered in didactic training in 96-100% of the programs surveyed. Percentage of clinical training in family planning and contraception care decreased to 87% for NP programs, 88% for PA programs and 96% for CNM programs. CNM programs receive the most didactic training in abortion care whereas far fewer NP and PA programs provide didactic instruction on abortion care. Across all specialties, the percentage of programs providing clinical education in abortion care is low.	N = 202, response rate 42%
Harper et al. (2008) *Obstetrics & Gynecology*,	In order to assess knowledge and practice patterns of clinicians providing intrauterine contraception, this study surveyed clinicians from the California State family planning program.	Physician, APRN, PA	Quantitative Survey – Correlational	46% of clinicians and 39% of clinicians would consider providing IUDs to nulliparous and postabortion women although evidence says otherwise. Specialization in OB-GYN for physicians and midlevel providers was	N = 816, response rate 65%

				associated with higher rates of IUD provision.	
Henderson et al. (2010*) Obstetrics and Gynecology*	This study surveyed OB-GYN and Family medicine physicians and APRNs that provide reproductive healthcare to women in the United States to determine their requirements for prescribing oral contraceptives (if they required a pelvic examination prior or not) and adherence to screening guidelines for STI's and cervical cancer.	Physician, APRN	Quantitative Survey - Correlational	APRNs are more likely to serve teenage, minority, uninsured, and Medicaid-insured patients as well as practice in community or family-planning clinics than physicians. APRNs are less likely than physicians to require a pelvic examination prior to prescribing oral contraceptives than physicians. Private practice was another indicator that a clinician would require a pelvic exam. Clinicians who required a pelvic exam prior to prescribing were also less likely to correctly follow appropriate screening guidelines.	N = 1,196, response rate 65.3%
Klerman et al. (2007) *Maternal and Child Health Journal*	This study examined the connection between availability variables and the location of the facility, the type of facility, and if the facility received Title X or medicaid funding. The purpose was to examine the organizational structure of a facility and its impact on accessibility of family planning services.	Physician, APRN, PA, RN	Quantitative Survey – Correlational study	100% of Planned Parenthood clinics staffed APPs. Planned Parenthood clinics surveyed were also more likely to offer evening and weekend hours than FQHCs and LHDs. Title X funded clincs are more likely to staff APPs and RNs. FQHC's are more likely to be staffed by physicians, have high cultural congruence and competency, and offer a broader range of services.	N = 526, response rate 72.5%
Kumar & Brown (2016) *Journal of Adolescent Health*	This review summarizes literature from 2000 to 2015 on barriers adolescents face to obtaining LARCs, included provider awareness, knowledge and practices.	Physician	Literature review	Misconceptions about IUD safety is the most common concern among physicians that prevent them from offering this contraceptive method to adolescents. Those misconceptions largely arise from an older IUD that led to increased risk of pelvic inflammatory disease. Providers perceptions of adolescents' abilities to make appropriate SRH decisions is another factor	N/A

				influencing LARC provision.	
Rubin et al. (2013) ***Journal of Primary Care and Community Health***	Phone interviews conducted with family physicians, pediatricians, and OB-GYNs practicing at a large medical center in Brooklyn, New York and serve adolescents.	Physician	Qualitative Interviews	Although pregnancy prevention is believed to be an adolescent's primary concern, providers are hesitant to offer adolescents IUDs because adolescents may stop using STI prevention methods. Yet, this means that physicians are no longer adhering to professional guidelines for adolescent contraception.	N = 28, response rate 46%
Samora & Leslie (2007) ***Journal of Obstetric, Gynecologic, and Neonatal Nursing***	This theoretical piece touches on literature related to the role of advanced practice clinicians (APCs) in providing abortion services and barriers to expanding abortion care to clinicians other than physicians.	APRN, PA	Theoretical review of literature and policies	Advanced practice providers that do not offer abortion services are likely to cite lack of training opportunities as a major barrier. Legal restraints and misconceptions about scope of practice also contribute to fewer numbers of APPs offering abortion services.	N/A
Seelig et al. (2008) ***Women's Health Issues***	This study examines the factors that contribute to increased availability of gynecologic services in veteran's health programs. They evaluated services offered, clinic type, and staffing arrangements.	Physician, APRN, PA	Quantitative Survey - Correlational	56% had at least one OB-GYN and more than one PA or APRN, all routinely available, 8% only had PAs or APRNs routinely available, and 35% only had an OB-GYN routinely available. When analyzed in conjunction with service availability, the study authors found that having an OB-GYN routinely available was indicative of greater availability of advanced gynecologic services (edometrial biopsy, IUD insertion, infertility evaluation, infertility treatment, gynecologic surgery), rather the establishment of a Women's Health Center.	N = 136, response rate 83%
Turk et al. (2014) ***Contraception***	Survey of fourth year residents in all US OB-GYN residency programs inquiring as to their training experiences in family	Physician	Quantitative Survey – Descriptive and Correlational	54% reported training in elective abortion was a routine part of the curriculum. 30% that it was optional, 16% that it was not available. Usually trained at a freestanding	N = 161 (362 residents representing 161 of 240 residency programs)

	planning and abortion care.			clinic. Residents reporting on routine training more likely to be women, favorable attitudes towards abortion, planned to perform elective abortions after residency. Routine training associated with more opportunities to perform the procedure in clinical training. Program located in the south were less likely to offer training on D&E	Program response rate of 67.1%
Tyler et al. (2012) ***Obstetrics and Gynecology***	Survey of physicians, nurse practitioners, and physician assistants in the California state family planning program to assess practice patterns in contraceptive provision and knowledge of correct methods.	Physician, APRN, PA, RN	Quantitative Survey - Correlational	30% of respondents to the survey perceived IUDs to be unsafe for nulliparous women. Title X clinicians are more likely to provide the copper IUD to patients. Title X APPs and office-based OB-GYN physicians were less likely to report IUDs as unsafe than physicians.	N = 1,958 635 office-based physicians 1,323 Title X providers Response Rates: 51.8% OB-GYNs 44.9% Family medicine physicians 68.0% Adolescent medicine physicians 77.5% Title X Clinic providers